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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,460	08/03/2001	Uwe Sydon	2001P11177US	1376

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Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
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EXAMINER

NGUYEN, JOSEPH D

ART UNIT PAPER NUMBER

2683

DATE MAILED: 01/26/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,460

Applicant(s)

SYDON, UWE

Examiner

Joseph D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-15, 17-18, and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Lomp et al. (6,215,778).

Regarding claim 1, Lomp et al. discloses a method of changing a physical data rate of an air interface on a per channel basis (title, col. 6 lines 30-47, col. 12 lines 32-41, and col. 13 lines 7-38), the method comprising:

a) providing a plurality of logical communication channels (col. 13 line 23 thru col. 15 line 37), the plurality of logical communication channels being configured to communicate a signal (col. 13 line 23 thru col. 15 line 37);

b) providing a control channel that assigns data rates to the plurality of logical channels (col. 13 line 23 thru col. 15 line 37); and

c) changing the data rates of the plurality of logical channels on a per channel basis (col. 6 lines 30-47, col. 12 lines 32-41, col. 13 lines 7-38, and col. 60 lines 6-44).

Regarding claim 2, Lomp et al. further discloses the method of claim 1, further comprising providing a high data rate channel (col. 1 lines 13-22, col. 60 lines 6-44, and col. 66 lines 51-62).

Regarding claim 3, Lomp et al. further discloses the method of claim 1, further comprising using a frequency hopping spread spectrum method to transmit the signal over the plurality of logical communication channels (col. 1 lines 24-65).

Regarding claim 4, Lomp et al. further discloses the method of claim 1, wherein the control channel operates at a low data rate (fig. 1, col. 13 line 7 thru col. 14 line 65).

Regarding claim 5, Lomp et al. further discloses the method of claim 1, wherein the plurality of logical communication channels operate at a data rate selected by the control channel (col. 12 lines 32-40, and col. 13 line 7 thru col. 15 line 37).

Regarding claim 6, Lomp et al. further discloses the method of claim 5, wherein the selected data rate is a multiple of a basic data rate (col. 12 lines 32-40).

Regarding claim 7, Lomp et al. further discloses the method of claim 1, wherein logical communication channels having a high data rate communicate data information (col. 60 lines 6-19) and logical communication channels having a low data rate communicate voice information (col. 13 lines 23-38).

Regarding claim 8, Lomp et al. further discloses the method of claim 7, wherein the high data rate is between 32 k bits/sec and 256 k bits/sec (col. 12 line 32 thru col.

13 line 38) and the low data rate is between 16 k bits/sec and 32 k bits/sec (col. 12 line 32 thru col. 13 line 38).

Regarding claim 9, Lomp et al. further discloses the method of claim 1, wherein the signal is communicated between a portable telephone and a base station (col. 10 line 64 thru col. 11 line 20).

Regarding claim 10, Lomp et al. discloses an air (radio) interface (col. 1 lines 7-38) comprising:

a) at least one logical communication channel configured to communicate a signal (col. 11 line 61 thru col. 12 line 18); and

b) a control channel that assigns a data rate to each of the at least one logical communication channel (col. 13 line 23-38, col. 42 lines 26-49, and col. 60 lines 20-44),

c) the control channel being configured to change the data rate assigned to each of the at least one logical communication channel (col. 6 lines 30-47, col. 12 lines 32-41, col. 13 lines 7-38, and col. 60 lines 6-44).

Regarding claim 11, Lomp et al. further discloses the air interface of claim 10, wherein the control channel changes the data rate assigned to each of the at least one logical communication channel based upon information about data communicated with the signal (col. 6 lines 30-47, col. 12 lines 32-41, col. 13 lines 7-38, col. 43 line 5 thru col. 44 line 55, and col. 60 lines 6-44).

Regarding claim 12, Lomp et al. further discloses the air interface of claim 11, wherein the information about data communicated with the signal comprises data type information (col. 13 lines 7-38).

Regarding claim 13, Lomp et al. further discloses the air interface of claim 11, wherein the information about data communicated with the signal comprises signal quality information (col. 2 line 66 thru col. 3 line 18, and col. 61 lines 44-64).

Regarding claim 14, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 15, Lomp et al. further discloses the air interface of claim 10, wherein the control channel includes interfered carrier information (col. 62 lines 17-45).

Regarding claim 17, Lomp et al. discloses a wireless communication system which provides for low data rate services as well as higher data rate services without a reduction in sensitivity characteristic to switching modulation schemes (abstract, and col. 13 lines 7-38), the communication system comprising:

- a) a communication device capable of receiving and sending communication signals (abstract);
- b) a base station capable of receiving and sending communication signals (fig. 1, col. 12 lines 49-64, and col. 14 lines 25-41); and
- c) an air interface (radio interface) of wireless communications between the communication device and the base station (col. 13 lines 7-38), the air interface

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including a control channel and a plurality of logical communication channels (col. 13 lines 7-38), the control channel assigning data rates to the plurality of logical communication channels on a per channel basis (col. 13 line 23 thru col. 15 line 37).

Regarding claim 18, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 20, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 8.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lomp et al. (6,215,778).

Regarding claim 19, Lomp et al. further discloses the communication system of claim 17, wherein the control channel operates at a minimum possible data rate, thereby using a various bandwidth supported and ensuring best sensitivity (abstract,

col. 12 line 33 thru col. 13 line 38, col. 47 lines 30-60, col. 60 lines 6-44, and col. 63 lines 1-17). However, it would have been obvious to one skilled in the art that the control channel operates at the minimum possible data rate and minimum bandwidth and to ensure the quality transmission is the same as a lowest possible data rate and lowest bandwidth.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lomp et al. (6,215,778) in view of Yun (6,463,295).

Regarding claim 16, Lomp et al. further discloses the air interface of claim 10, wherein the control channel uses forward error correction and encoded data is transmitted and the redundancy in the data enables the receiver decoder device to detect and correct errors to determine whether the at least one logical communication channels are disturbed (interference) (col. 43 lines 26-37, and col. 63 line 42 thru col. 64 line 27). However, Lomp et al. does not specifically disclose control channel uses cyclic redundancy checks (CRC) to determine the at least one logical channels are disturbed.

Yum teaches the control channel uses cyclic redundancy checks (CRC) to determine whether the at least one logical communication channels are disturbed (fig. 10, col. 18 line 58 thru col. 19 line 33). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify Lomp et al. system with the teaching of Yum of cyclic redundancy checks (CRC) in order to control the transmitter power level base on RF transmissions.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lomp et al. (6,215,778) in view of Fazel et al. (6,275,506).

Regarding claim 22, Lomp et al. further discloses the communication system of claim 17, wherein the communication device is a mobile subscriber unit. However, Lomp et al. does not specifically disclose the communication device is a personal digital assistant (PDA).

Fazel et al. teaches the communication device is a personal digital assistant (PDA) (col. 1 lines 4-15). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify Lomp et al. system with the teaching of Fazel et al. of the device system is a personal digital assistant (PDA) in order to provide customer the choice of wireless device for transmit and receiving variable data rate.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

703 308-9051, (for formal communication intended for entry)

Or:

(703) 305-9509 (for informal or draft communications, please label
"PROPOSED" OR "DRAFT")

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Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA. Sixth floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D Nguyen whose telephone number is (703) 605-1301. The examiner can normally be reached on 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Joseph Nguyen



Jan. 15, 2004



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
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